## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

# WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-026705 Address: 333 Burma Road **Date Inspected:** 14-Nov-2011

City: Oakland, CA 94607

**Project Name:** SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

**CWI Name: CWI Present:** Yes No As noted below. **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A

**Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No

> Yes No **Delayed / Cancelled:**

**Bridge No:** 34-0006 **Component: OBG** Component

## **Summary of Items Observed:**

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

# 13W/14W "D" Plate

This QA observed, at random intervals, an ABF/JV qualified welder, Rory Hogan #3186, performing Flux Cored Arc Welding (FCAW) and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-4042B-1. Welding was performed at the 30/35mm butt weld joint (B-U2-S) connecting Lift 13 and Lift 14 "D" bottom plates.

This weld is a Seismic Performance Critical Member (SPCM) member.

During welding, ABF Quality Control (QC) Steve Jensen was noted monitoring the welding parameters. Welding parameters were recorded as (A=555, V=32.5, T=400).

This QA observed, at random intervals, an ABF/JV qualified welder, Jeremy Dolman #5042, performing Flux Cored Arc Welding (FCAW) and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3200-2. Welding was performed at the 30/35mm butt weld joint (B-U2-S) connecting Lift 13 and Lift 14 "D" bottom plates.

This weld is a Seismic Performance Critical Member (SPCM) member.

During welding, ABF Quality Control (QC) Steve Jensen was noted monitoring the welding parameters. Welding parameters were recorded as (A=244, V=23.7, T=300).

N/A

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### 13W/14W "H" Plate

This QA observed, at random intervals, an ABF/JV qualified welder, Richard Garcia #5892, performing Flux Cored Arc Welding (FCAW) and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3040B-3. Welding was performed at the 25/30mm butt weld joint (B-U2a-GF) connecting Lift 13 and Lift 14 "H" diagonal plates.

This weld is a Seismic Performance Critical Member (SPCM) member.

During welding, ABF Quality Control (QC) Steve Jensen was noted monitoring the welding parameters. Welding parameters were recorded as (A=129, V=24.4, T=150).

#### Note:

This QA performed a planar alignment survey of the 13W/14W "H" diagonal plate butt joint (B-U2-GF). Readings indicate at the area within 90mm of the "D" plate / "H" plate interface the off-set has been measured to range from approximately 8~10mm. QC is aware of the out of tolerance measurements and are in the process of issuing the appropriate Non Conformance Report (NCR). This QA verbally informed QA SPCM Lead, Daniel Reyes of this issue before the end of the work shift.

## Approximately:

13:30 this QA observed QC Pat Swain perform Ultrasonic Testing (UT) of the completed welds at panel point W4-PP128-LLH#1&2 location. Mr. Swain recorded no rejectable indications at this time. Mr. Swain did record one (1) indication that was within six (6) decibels of the rejectable criteria at Lifting Lug Hole #1 and two (2) indications that were within six (6) decibels of the rejectable criteria at Lifting Lug Hole #2. Please see QCUT report dated 11/14/11 for more information regarding these non-rejectable indications.

### East Line

This QA observed, at random intervals, ABF/JV qualified welder Rick Clayborn #2773 performing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1004R. The joint being welded was a 20mm plate insert at the "A" deck to close a ventilation hole. This work was located at E3.2-PP126.7 and was performed in the overhead position from the bottom of the "A" deck plate.

During welding, ABF Quality Control (QC) Fred Vonhoff was noted monitoring the welding parameters. Welding parameters were recorded as (A=132).

This joint is a Seismic Performance Critical Member (SPCM) member.

Approximately 9:15 this QA observed QC Fred Vonhoff perform Magnetic Particle (MT) of the back gouged weld at this panel point E3.2-PP126.7 location. Mr. Vonhoff recorded no rejectable indications at this time.

This QA observed, at random intervals, ABF/JV qualified welder Kevin Kananen #6521 performing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1050A-CU. The joint being welded was a 20mm plate insert at the "A" deck to close a ventilation hole. This work was located at E2.8-PP126.2 and was performed in the flat position from the top of the "A" deck plate.

During welding, ABF Quality Control (QC) Fred Vonhoff was noted monitoring the welding parameters. Welding parameters were recorded as (A=135).

This joint is a Seismic Performance Critical Member (SPCM) member.

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This QA observed, at random intervals, ABF/JV qualified welder #4639 performing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1050A-CU. The joint being welded was a 20mm plate insert at the "A" deck to close a ventilation hole. This work was located at E5-PP126.7 and was performed in the flat position from the top of the "A" deck plate.

During welding, ABF Quality Control (QC) Fred Vonhoff was noted monitoring the welding parameters. Welding parameters were recorded as (A=133).

This joint is a Seismic Performance Critical Member (SPCM) member.

This QA verbally informed QA SPCM Lead, Daniel Reyes, of the issues noted in this report for compliance. For further details of issues of significance see QA SPCM Lead, Daniel Reyes, "Daily Inspection Report" (TL-6031) submitted for this date.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## **Summary of Conversations:**

No relevant conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Clifford,William	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer